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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,356	08/15/2001	Tameo Yanagino	107101-00036	8870

7590 06/30/2005

NIKAIDO, MARMELSTEIN, MURRAY & ORAM LLP  
Metropolitan Square  
Suite 330 - G Street Lobby  
655 Fifteenth Street, N.W.  
Washington, DC 20005-5701

EXAMINER

GRAYSAY, TAMARA L

ART UNIT	PAPER NUMBER
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3623

DATE MAILED: 06/30/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/929,356

Applicant(s)

YANAGINO ET AL.

Examiner

Tamara L. Graysay

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 August 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☒ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
  - 2) ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date (2 pages).
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_.

5-06-

## **DETAILED ACTION**

### ***Priority***

1. Receipt is acknowledged of papers submitted under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file.

### ***Oath/Declaration***

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:

Although it identifies the foreign application, it does not state that the foreign application had been filed by the inventor(s) or by the assignee, or the legal representative or agent, of the inventor, or on behalf of the inventor, pursuant to MPEP § 201.13, II, C.

### ***Specification***

3. The lengthy specification has not been checked to the extent necessary to determine the presence of all possible minor errors. Applicant's cooperation is requested in correcting any errors of which applicant may become aware in the specification.

4. The disclosure is objected to because of the following informalities:

- a. Page 9, lines 3-8, appears to be inconsistent as to the explanations of the ratio.

The first explanation of the number of orders ratio = the number of orders after orders

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were nil over the number of orders before orders were nil. Whereas the second explanation of the ratio is the number of orders before the order expired and after the order expired. It seems that the second explanation is the inverse of the first explanation and not the same ratio. Clarification is required in response to this Office action.

b. Page 11, line 6, CRT should be spelled out at its first occurrence.

c. Page 13, line 20, "form" should be from.

Appropriate correction is required.

### ***Claim Objections***

5. A series of singular dependent claims is permissible in which a dependent claim refers to a preceding claim which, in turn, refers to another preceding claim.

A claim which depends from a dependent claim should not be separated by any claim which does not also depend from said dependent claim. It should be kept in mind that a dependent claim may refer to any preceding independent claim. In general, applicant's sequence will not be changed. See MPEP § 608.01(n).

In the present application, the examiner has not changed the numbering or sequence of the claims.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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6. Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 7, 12, and 18, line 5, "the predetermined level" lacks antecedent basis in the claim.

***Claim Rejections - 35 USC § 101***

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

7. Claims 1-22 are rejected under 35 U.S.C. 101 because the claimed invention is directed to nonstatutory subject matter.

***Claims 1-11***

A process claim is statutory if it is limited to a practical application within the technological arts.

First, a practical application is one that is useful, concrete, and tangible, i.e., a real world value and reproducible. Although the claims include forecasting a number of orders, an inherently useful result, a process that merely manipulates an abstract idea or performs a purely mathematical algorithm is nonstatutory despite the fact that it might inherently have some usefulness. In re Sarkar, 200 USPQ 132, 139 (CCPA 178). In the present application, the steps of gathering data and performing the steps of the equation(s) to arrive at the forecasted number of orders is nothing more than gathering and substituting values in an equation dictated by the

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mathematical formula. Such steps are nonstatutory, without producing something that is concrete and tangible.

Second, a process to be performed upon subject matter to be transformed and reduced to a different state or thing is within the technological arts. A process encompassing statutory subject matter is one that requires that certain things be done with certain substances, and in a certain order; but the tools to be used in doing this may be of secondary consequence. MPEP § 2106,IV,B,2. In the present application, the claims are drawn to a method of compiling data and performing mathematical steps. Each step, as claimed, is a human activity not performed on any subject matter to be transformed and reduced to a different state, the claims are therefore nonstatutory, i.e., not within the technological arts.

Therefore, process claims 1-11 are directed to nonstatutory subject matter.

#### *Claims 12-22*

The claims are drawn to a system for forecasting comprising “means” for performing functions. Looking to the specification for a determination of the scope of the claimed “means” reveals no particular machine or manufacture for performing the claimed functions. The disclosure does not include a computer program or logic circuit in support of the “means” limitation in the claim. Product claims not drawn to a specific machine or manufacture are evaluated as to the process to be performed by the product. Thus, the claims are evaluated as to the process to be performed by the system or product. Claims to processes that do nothing more than solve mathematical problems or manipulate abstract ideas or concepts are nonstatutory. If the steps of the claimed process manipulate only numbers, abstract concepts or ideas, or signals representative thereof, then the process does not manipulate appropriate subject matter. In the

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present application, system claims 12-22 are nonstatutory because only an inherent usefulness has been claimed (as noted with regard to process claims 1-11 above) without producing something that is concrete and tangible. Further, the system process, as claimed, is a human activity not performed on any subject matter to be transformed and reduced to a different state, the claims are therefore nonstatutory, i.e., not within the technological arts.

Therefore, system claims 12-22 are directed to nonstatutory subject matter.

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

8. Claims 1-6, 10, 12-17 and 21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mujtaba (article, Enterprise modeling and simulation: complex dynamic behavior of a simple model of manufacturing).

### *Claims 1- 10*

Mujtaba discloses time analysis of orders for products (e.g., Adder-1, Adder-2, Adder-3, Adde-4) and compares the results of enterprise modeling and simulation for each of the products (for example, page 101, figures 15, 16 which depict orders after expiration represented by the curved line for each Adder/product). Mujtaba also mentions Monte Carlo simulation for analysis of business-oriented economics (page 82, left column, lines 1-11 a company finance department was modeled and the model subject to Monte Carlo simulation analysis). Further, Mujtaba

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teaches in figure 4 the inventory curve for a product life cycle. Mujtaba teaches (claims 2-4, 6) forecasting for products having different order rates (page 92, right column, third and fourth paragraphs) and the effects of time series (page 93, figure 8). Mujtaba also teaches (claim 10) checking accuracy of forecast number of orders and making changes based on the comparison (page 91-92, A/F ratio, comparing forecasted demand with actual demand as they relate to product orders). Mujtaba teaches (claim 10) using initial orders as early indicators of a life cycle and revising the forecast after a certain period of time (page 94, right column, second paragraph). Mujtaba suggests (claim 7) combining probability distribution and simulation (page 99, right column, fifth paragraph, simulation and least sum of squares analysis). Mujtaba infers, rather than explicitly disclose, that products are categorized (page 101, right column, second paragraph, part commonality).

The examiner takes Official notice that it is within the level of ordinary skill in the operations research art to categorize items being analyzed in order to expedite processing and analysis of future products in the same category. Also, the examiner takes Official notice that minimization of end-of life inventory, i.e., inventory left over that must be written off, is a consideration in the field of product manufacturing.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Mujtaba to include Monte Carlo simulation after categorization of products by characteristics in order to predict performance of future products in the same category and to simulate the demand over the life of a product in order to minimize end-of-life inventory and the associated write-off costs.



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Regarding claims 5 and 8, the examiner takes Official notice that a ratio is merely a comparison of two things and such a comparison is within the level of ordinary skill in the operations research field of endeavor.

*Claims 12-21*

The system claims, are unpatentable in view of Mujtaba, for the same reasons as set forth in the rejection above.

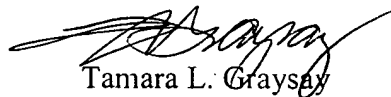
***Conclusion***

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tamara L. Graysay whose telephone number is (571) 272-6728. The examiner can normally be reached on Mon - Fri from 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz, can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Tamara L. Graysay  
Examiner  
Art Unit 3623

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